

In the Claims

1. (Previously presented) A process for controlling the composition of a solution in the production of cellulosic shaped bodies, the process comprising:
 - (a) mixing cellulose and a water-containing amine oxide to form a suspension,
 - (b) creating a cellulose solution from the suspension by vaporization of water,
 - (c) measuring a first property of the cellulose solution and a second property different from the first property wherein the measured values of the first and second properties are used to calculate the actual composition of the solution and their deviation from values of a target composition is used to adjust the composition of the solution; and
 - (d) extruding the cellulose solution through an air gap into an aqueous regeneration bath where it is coagulated to form shaped bodies that are capable of undergoing further processing steps.
2. (Previously presented) The process according to claim 1, wherein the first and second properties of the cellulose solution are selected from the group consisting of: relative permittivity, inductive conductivity, microwave absorption, refractive index, density, water content, and ultrasonic speed.
3. (Currently amended) The process according to claim 2, further comprising measuring the cellulose solution's temperature, and the measured values of the first and second properties are adjusted on the basis of the measured temperature, wherein the timing of the temperature measuring is selected from the group consisting of during the measuring of the

first and second property, ~~shortly~~ before the measuring of the first and second property and after measuring of the first and second property.

4. (Previously presented) The process according to claim 2, wherein at least one of the first and second property is measured in-line.
5. (Previously presented) The process according to claim 2, wherein the solution composition is adjusted by manual intervention in the dosing of the suspension components of step (a).
6. (Previously presented) The process according to claim 2, wherein operating conditions are adjusted by manual intervention in the operating conditions of step (b).
7. (Previously presented) A device for performing a process for controlling the composition of a cellulose solution comprising cellulose and a water-containing amine oxide used in the production of cellulosic shaped bodies the device comprising:
 - (a) a slurring apparatus communicatively connected with at least two metering devices for metering input of the cellulose and water-containing amine oxide;
 - (b) a dissolving and vaporization arrangement connected to the slurring apparatus;
 - (c) an extruding device connected by a conduit to the dissolving and vaporizing arrangement and having a regeneration bath attached downstream therefrom;
 - (d) at least two measuring instruments contacting the conduit for measuring a first and a second property of the cellulose solution passing through the conduit; and

(e) a controlling circuit for controlling the composition of the cellulose solution by determining the actual composition of the cellulose solution in the conduit from the measured values of the first and second property and to determine the deviation from a preset target composition and adjust metering devices to correct for any deviation.

8. (Previously presented) The device according to claim 7, where in the first and second property of the cellulose solution are different and selected from the group consisting of: relative permittivity, inductive conductivity, microwave absorption, refractive index, density, water content, and ultrasonic speed.
9. (Previously presented) The device according to claim 8, further comprising a temperature measuring instrument for measuring the temperature of the cellulose solution and to compensate for temperature in the measured values of measuring instruments.
10. (Previously presented) The device according to claim 7, wherein the measuring instruments, a microprocessor and the metering devices form the controlling circuit.